Dominion is pleased to provide the following in response to the United States Department of Energy's request for comments regarding the benefits of economic dispatch in the electric industry. Dominion has experience with economic dispatch of generation both inside and outside of organized wholesale markets.

Dominion has observed the benefits of a Security Constrained Economic Dispatch (SCED) model being used over a large independently operated wholesale market region in PJM, MISO and ISO-NE where our generation assets are located. Dominion has not observed any discrimination in the procedures or practices used for the dispatch of utility generation versus non-utility generation in these regions. Dominion is not in the position to comment fully on areas of the country where these types of markets do not currently exist, however it is our experience that large independent regions give better economic dispatch results than smaller regions or areas without independent markets. We believe independent market operators are better able to manage both reliability and economic operation by fully including independently owned generation into security constrained economic dispatch procedures.

1) What are the procedures now used in your region for economic dispatch? Who is performing the dispatch (a utility, an ISO or RTO, or other) and over how large an area (geographic scope, MW load, MW generation resources, number of retail customers within the dispatch area)?

All of Dominion's generation is located in PJM, ISO-NE or MISO, and as such is dispatched using an SCED algorithm in accordance with the regions' market rules and procedures. Specifics on geographic scope, load, generation resources, and retail customers should be obtained from the RTOs.

2) Is the Act's definition of economic dispatch (see above) appropriate? Over what geographic scale or area should economic dispatch be practiced? Besides cost and reliability, are there any other factors or considerations that should be considered in economic dispatch, and why?

The Act's definition is accurate and appropriate. The process commonly referred to as SCED is the nodal dispatch algorithm that determines the optimal (least cost) system-wide dispatch based upon individual resource offer prices while observing all transmission security and generator operating constraints. SCED programs yield better results when practiced over large RTO regions (i.e., PJM) rather than smaller individual balancing authorities operated by individual electric utilities. Consolidation of balancing authorities into larger independently run economic dispatch regions would provide a more economic and reliable result. Defining economic dispatch control over broader regions such as RTO footprints is appropriate.

3) How do economic dispatch procedures differ for different classes of generation, including utility-owned versus non-utility generation? Do actual operational practices differ from the formal procedures required under tariff or federal or state

rules, or from the economic dispatch definition above? If there is a difference, please indicate what the difference is, how often this occurs, and its impacts upon non-utility generation and upon retail electricity users. If you have specific analyses or studies that document your position, please provide them.

SCED is a two-stage process. Units are committed for the next day based on offer prices and load forecasts using a security constrained model of the system. This is followed by optimization in real time to meet changing requirements. Different types of generation (baseload, intermediate and peaking) experience different results from economic dispatch runs, but this is expected due to the different economic and dispatch attributes of the units. What shouldn't materially differ are the results expected when SCED is performed for comparable utility and non-utility owned units within a RTO or other balancing authority. Inside fully independent RTO balancing authority areas that operate functional wholesale markets, dispatch practices and procedures are the same, and all generation is treated the same regardless of ownership. Outside RTOs where no formal rules exist for operating wholesale energy markets, balancing authorities are limited in their ability to offer the same non-discriminatory dispatch to non-utility generators. Additionally, Federal and State jurisdictional issues may impede the inclusion of non-utility owned units in the SCED model as effectively as within a RTOs, and some balancing authorities may not have sufficient contractual authority to fully integrate independently owned resources into economic dispatch.

Normally within an RTO, actual operational practices do not differ from tariff procedures. Under certain circumstances such as weather extremes, unplanned generation or transmission outages, and missed load forecasts, one reasonably expects deviations from the dispatch procedures and such deviations improve, and not diminish, system reliability.

4) What changes in economic dispatch procedures would lead to more non-utility generator dispatch? If you think that changes are needed to current economic dispatch procedures in your area to better enable economic dispatch participation by nonutility generators, please explain the changes you recommend.

No changes in economic dispatch procedures are needed in the areas where Dominion owns generation: PJM, MISO and ISO-NE. In other areas of the country, further development of wholesale markets and independent balancing authority oversight would lead to a greater SCED of non-utility generation.

5) If economic dispatch causes greater dispatch and use of non-utility generation, what effects might this have – on the grid, on the mix of energy and capacity available to retail customers, to energy prices and costs, to environmental emissions, or other impacts? How would this affect retail customers in particular states or nationwide? If you have specific analyses to support your position, please provide them to us.

Greater dispatch of non-utility generation in areas outside of existing RTOs should have no adverse reliability affects on the grid because the economic dispatch algorithm is designed to be security constrained. Implementing security constrained economic dispatch over wide regions can improve reliability by reducing dependence on TLRs for control of congestion. The impact on generation mix, available capacity and environmental emissions depends upon the generation available in a given region and is specific to each area. Improvements in economic dispatch should equate to lower overall costs for retail customers.

6) Could there be any implications for grid reliability – positive or negative – from greater use of economic dispatch? If so, how should economic dispatch be modified or enhanced to protect reliability?

See numbers 4 and 5 above**.**